



City of Vision

Department of Public Infrastructure

NOTICE

TO: Building Permit Applicants:

RE: **GRADING AND DRAINAGE REQUIREMENTS**

GRADING PERMITS:

Grading permits are required prior to any construction or development related to grading. This includes clearing and grubbing.

For residential, commercial and or other structural construction, the permit will be issued and administered concurrently with the building permit.

When grading is the only construction (NO STRUCTURES), an independent grading permit is required.

GRADING A SITE PRIOR TO OBTAINING A PERMIT IS ILEGAL AND IS SUBJECT TO ENFORCEMENT ACTION.

In addition, certain sites are subject to Army Corps of Engineers 404 permit requirements. Attached is a letter from the Corps of Engineers explaining their requirements.

Grading Plans:

An engineered grading and drainage plan, prepared by a New Mexico licensed engineer, is required when any one of the following conditions applies:

1. Grading will disturb an area greater than one acre.
2. Grading will involve the excavation, removal or placement of over 500 cubic yards of material.
3. Grading will modify the public drainage system, defined as "The path the storm run-off or other flow will follow from the furthest upstream parcels of land to city limits."
4. A building pad or first floor elevation (including basements) will be less than one foot above the adjacent to street or road.

Grading plans are required to be submitted with the building (or grading) permit application.

Enforcement:

Grading will be inspected prior to footing construction and again prior to Certificate of Occupancy being issued. A Certificate of Occupancy will not be issued until all requirements of the grading and drainage plan have been implemented.



ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
4101 JEFFERSON PLAZA NE
ALBUQUERQUE, NEW MEXICO 87109-3435
FAX (505) 342-3498

December 12, 2001

REPLY TO
ATTENTION OF:

Operations Division
Regulatory Branch

Mr. Robert Schulz
City of Rio Rancho
Department of Public Works
P.O. Box 15550
Rio Rancho, NM 87174-0550

Dear Mr. Schulz:

This is in reference to our December 6, 2001 meeting regarding compliance with regulations pursuant to Section 404 of the Clean Water Act (33 CFR 320-331). As discussed, it is important for public and/or private individuals and entities to notify the Corps of Engineers prior to depositing soil, rock, debris, or other fill material into jurisdictional waters. In most cases, the actions above require a Section 404 permit or verification of an existing general permit. The placement of fill or dredged material in jurisdictional waters without authorization is a violation of federal law and subject to enforcement actions.

An example of a jurisdictional water is an arroyo which is a part of a drainage system ultimately draining to the Rio Grande (ex. - Black's Arroyo, Arroyo de los Montoyas). In other words, a jurisdictional water is an interstate water and its tributaries and subtributaries. Note that a channel does not need constant water flow to be jurisdictional. Also, there is no size criteria defining a jurisdictional water so smaller, unnamed arroyos may also be jurisdictional waters. Finally, wetlands adjacent to jurisdictional waters are themselves jurisdictional.

We are available to answer questions regarding jurisdiction, whether in general or site-specific. We can make site visits, although early notification is recommended. There are no fees associated with our desk or field jurisdictional determinations.

If you have any questions please feel free to write or call me at (505) 342-3279, or e-mail at: ed.l.paulsgrove@usace.army.mil.

Sincerely,

Edward L. Paulsgrove
Regulatory Project Manager

**City of Rio Rancho
Summary of
GRADING PERMIT REQUIREMENTS**

**Prepared by:
Robert C. Schulz, P.E.
Project Manager, Department of Public Works**

May 11, 2000

A - General:

Applications are submitted to the City Engineer in letter form. The letter needs to include specific information as indicated in Section B. Certain items must be included as exhibits to the application, as listed in Section C. The Owner and Contractor/Builder will need to agree to the performance standards listed in Section D.

The permit will be approved by letter from the City Engineer. Any deviation from the approved permit will need to be approved in advance by the City Engineer.

The permit shall remain in effect until one of the following conditions has been met:

- 1 - The disturbed area has been permanently stabilized by revegetation, paving or other permanent surface treatment.
- 2 - The graded area is incorporated in another city approved permit, such as a building permit or project construction plans.

B - An application for a grading permit must include the following general information:

- 1 - Property owner: Name, address and phone number.
- 2 - Contractor/Builder: Name, address and phone number.
- 3 - Primary contact, during construction: Name and phone number.
- 4 - Emergency/after hours contact, during construction: Name and phone number.
- 5 - Site location, address and legal description.
- 6 - Description of work to be performed.
- 7 - Construction schedule, including:

- a – Start date
 - b – Date of major accomplishments
 - c – Completion date
 - d – Final stabilization (revegetation, paving, etc.)
- 8 - Land area. (acres)
- 9 - Disturbed area. (acres)
- 10 - The application must include a statement that the owner and the contractor/builder understand and will comply with the requirements listed in this “Summary of Grading Permit Requirements” document. This document should be attached to the application letter.
- 11 - Contractor/builder signature.
- 12 - Owner signature

C - The following items should be submitted with the application:

- 1 - Location Map based on CORR Street Map Atlas
- 2 - Approved plat. (9-2-6)
- 3 - Approved grading and drainage plan. (8-7-12-I)
- 4 - If the applicant is required to comply with the industrial permit requirements of the Clean Water Act, the applicant shall provide a copy of EPA Notice of Intent and SWPPP (Stormwater Pollution Prevention Plan), as forwarded to the EPA.
- 5 - Erosion/Dust/SWP Control Plan, if not required as part of item 4.
- 6 - Haul Routes.
- 7 - Flow path to the nearest major arroyo, floodplain or drainage way.

Note: Items 1,6 and 7 may be included on item 4 or 5.

D - The owner and contractor must agree to comply with the following Performance Standards:

- 1 - All work performed under this permit shall comply with the City of Rio Rancho Dust Control Ordinance (9-12-8). These requirements shall apply to city roads used as haul routes.
- 2 - All work performed under this permit shall comply with the requirements of the City of Rio Rancho Storm Drainage Regulations (8-7).
- 3 - All work performed under this permit shall comply with the requirements of the "City of Rio Ranch Grading and Drainage Design Requirements and Policies for Land Development".
- 4 - The owner, contractor and/or builder shall determine and comply with all appropriate local, State and Federal regulations and requirements.
- 5 - This permit does not allow any construction activities within FEMA or SSCAFCA floodplains or drainage ways unless it is specifically stated within the permit.
- 6 - Fill/back-fill shall be placed in eight inch lifts and compacted to 90% optimum density per ASTM D1577 and 95% under structures including driveways and parking lots.
- 7 - The contractor/builder shall take all appropriate and reasonable measures to prevent sediment or pollutant laden storm water from exiting the site during construction. Stormwater may be discharged in a manner, which complies with the approved grading and drainage plan.
- 8 - The contractor/builder shall take all appropriate and reasonable measures to prevent the movement of construction related sediment, dust, mud, pollutants, debris, waste, etc from the site by wind, storm flow or any other method excluding the intentional, legal transportation of same in a manner acceptable to the city.

Any deviation from this permit must be approved in advance by the City Engineer.



City of Rio Rancho

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DEPARTMENT OF PUBLIC WORKS

GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT IN RIO RANCHO (Revised 3-18-93)

1. All Grading and Drainage design for land development in Rio Rancho shall conform to the applicable requirements of the following City Ordinances:
 - Chapter 8, Article 4, "Flood and Erosion Control"
 - Chapter 8, Article 7, "Storm Drainage Requirements"
 - Chapter 9, Article 2, "Subdivisions"and to the applicable provisions of the "Drainage Policy" of the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) and to the applicable requirements and policies listed hereinafter.
2. Minimum criteria for hydrology and hydraulic calculations and design shall be as described in Volume 2, Development Process Manual, City of Albuquerque, latest revision, or the AHYMO version of the ARS HYMO Computer Program. Calculations shall accompany design submittals.
3. Calculations shall be furnished for historic flows and developed flows for the 10 year and 100 year 6 hour storms. Calculations shall be furnished for sizing all conveyances and storage ponds on site as well as downstream infrastructure, if pertinent. Calculations should also address depth of flows in streets as required in Ordinance 8-7-7.
4. Soil classifications may be obtained from USDA Soil Conservation Service maps or investigations performed by Geotechnical engineers, if necessary.
5. Unless restricted by specific infrastructure limitations, maximum discharge permitted from a developed property in the event of a 100 year 6 hour storm shall be the amount of the historic or pre-developed runoff in all watersheds of the city. Due to infrastructure limitations, developed properties in the watershed area intercepted by the 7 – Bar Channel adjacent to NM 528 south of High Resort Boulevard shall have discharge limited to 0.5 cfs per acre. Discharge limitations shall apply to all development projects except for single family residential projects under 5 lots or 5 acres total.
6. Detention Ponds or Retention Ponds shall not be constructed in public street right-of-way. Discharge from the detention ponds shall be conveyed to public infrastructure such as streets and channels by approved means such as pipe or channels. It is recommended that pipe sizes less than 6" diameter not be used due

to maintenance concerns. To restrict flows, apertures in caps placed at the inlet end are suggested.

7. Detention Ponds shall be sized to provide 1 foot of Freeboard and to empty within 24 hours. Retention ponds shall be sized to contain twice the volume of the 100 year 6 hour storm for the area drained plus 1 foot Freeboard. Percolation tests may be required to address design requirements. Ponds designed for water depths of 18 inches or more shall be fenced to acceptable standards.
8. Surface drainage shall not be permitted to flow onto adjacent private property. Where drainage easements exist, underground pipelines may be permitted.
9. In residential subdivisions, on-site detention is not permitted on individual lots. Detention or retention shall be provided in locations otherwise provided for by the developer. Minimum grades for drainage in lots shall be 1 percent unless paved swales are provided. Maximum grades for slopes shall be restricted to 25 percent. Retaining walls should be provided where necessary to accommodate this goal. Retaining walls in excess of 5 feet high (footer to ground surface) should be avoided. Individual certification to the design and construction of retaining walls in excess of this parameter is required. All retaining walls should be designed to relieve potential hydrostatic pressure by providing weepholes where necessary.
10. All embankment in subdivisions shall be placed and compacted in lifts of maximum of 8 inches thick, wetted and compacted for 90% of optimum density per ASTM D1557 and 95% under all structures including driveways and parking lots. Slopes should be graded to a maximum of 4 to 1 when feasible. Access roads for maintenance shall be provided for drainage channels and adequate right-of-way shall be provided for the channels, maintenance roads and room for hiking-bikeway trails.
11. In projects affected by the 100 year flood plain, the proposed 100 year base flood line shall be delineated on the Grading and Drainage Improvement plans. If there is a change to the Flood Insurance Maps as produced by the Federal Emergency Management Agency (FEMA), a Letter of Map Amendment (LOMA) or a Letter of Map Revision (LOMR) and a physical map revision shall be filed with the agency and the City Engineer's office. All new structures and substantial improvements to structures shall have its lowest floor elevation a minimum of 1.0 foot above the basic flood elevation.
12. All submittal documents, maps, plans, calculations, designs, etc. shall be made in triplicate. Following approvals or for consideration for joint concurrence when required, one set will be forwarded to Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA).

13. Drainage plans are required for building permits, minor subdivisions, and site development plans for individual parcels for commercial, industrial, or multifamily projects and shall meet the following requirements:
- (a) Furnish on 24" x 36" sheets with a minimum scale of 1" – 20". Show scale and north arrow.
 - (b) Show existing contour lines for predevelopment conditions and also for proposed development conditions. Vertical intervals shall not exceed 1 foot for slopes under 1 percent, 2 feet for slopes between 1 percent, and 5 feet for slopes in excess of 5 percent. Spot elevations shall be shown for pertinent items such as existing structures, curb and gutter, etc. Contours and elevations shall extend a minimum of 25 feet beyond project property lines.
 - (c) Show location and elevation of Bench Mark to mean sea level designation.
 - (d) Location map (smaller scale okay on same sheet or separate sheet).
 - (e) Watershed area including offsite if relevant (scale flexible).
 - (f) Soil type if pertinent.
 - (g) Legal description (including recording book and page).
 - (h) Rights of ways and easements.
 - (i) Description and location of relevant offsite drainage facilities.
 - (j) Professional Engineers stamp, signature and date.

CHAPTER 153: EROSION CONTROL; STORM DRAINAGE

Section

General Provisions

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- 153.02 Jurisdiction
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GENERAL PROVISIONS

§ 153.01 AUTHORITY.

This chapter is adopted pursuant to statutory authorities.
('87 Code, § 8-7-1) (Ord. 84-113; Am. Ord. 91-037)

§ 153.02 JURISDICTION.

This chapter shall apply to all newly developed lands within the city and, with respect to planning and platting matters, it shall also apply to all lands within its extraterritorial planning and platting jurisdiction.

(`87 Code, § 8-7-2) (Ord. 84-113; Am. Ord. 91-037)

§ 153.03 PURPOSE AND INTENT.

It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flooding by provisions designed:

(A) To establish policies, procedures, criteria and requirements to complement and to supplement Chapter 152 of this code for the assistance and guidance of the city officials, city staff and all persons and entities within the jurisdiction of the city.

(B) As to storm drainage, to:

(1) Prevent the creation of public safety hazards and seek to eliminate existing problems;

(2) Prevent, to the extent feasible, the discharge of storm runoff from public facilities onto private property;

(3) Prevent the increased risk of damage to private property caused by storm runoff from other private property;

(4) Provide a reasonable level of public health and convenience at reasonable cost; and

(5) Provide for timely and effective construction and maintenance of storm drainage facilities.

(`87 Code, § 8-7-3) (Ord. 84-113; Am. Ord. 91-037)

§ 153.04 TITLE.

This chapter may be cited as “The Drainage Chapter” and is referred to elsewhere herein as “the chapter.”

(`87 Code, § 8-7-4) (Ord. 84-113; Am. Ord. 91-037)

§ 153.05 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

CHANNEL. Any arroyo, stream, swale, ditch, diversion or water course that conveys storm runoff, including man-made facilities.

CHANNEL STABILITY. A condition in which a channel neither degrades to the degree that structures, utilities or private property are endangered, nor aggrades to the degree that flow capacity is significantly diminished as a result of one or more storm runoff events or moves laterally to the degree that adjacent property is endangered.

CHANNEL TREATMENT MEASURE. A physical alteration of a channel for any purpose.

CIP. The city's Capital Improvement Program.

CITY ENGINEER. The chief administrative engineer of the city or that engineer's designee.

COMPREHENSIVE PLAN. The comprehensive plan and amendments thereto.

CONCEPTUAL GRADING AND DRAINAGE PLAN. A plan prepared in graphical format showing existing and proposed grading, drainage control, flood control and erosion control information in sufficient detail to determine project feasibility.

DESIGN STORM. A storm which deposits a stated amount of precipitation within a stated period over a defined area and which is used in calculating storm runoff and in designing drainage control, flood control and erosion control measures.

DEVELOPED LAND. Any lot or parcel of land occupied by any structure intended for human occupation, including structures intended for commercial enterprise.

DEVELOPER. Any individual, estate, trust, receiver, cooperative association, club, corporation, company, firm, partnership, joint venture, syndicate or other entity engaging in the platting, subdivision, filling, grading, excavation or construction of structures.

DOWNSTREAM CAPACITY. The ability of downstream major facilities to accept and safely convey runoff generated upstream from the 100-year design storm.

DRAINAGE. Storm drainage.

DRAINAGE CONTROL. The treatment and/or management of surface runoff from all storms up to and including a ten-year design storm.

DRAINAGE PLAN. A short, detailed plan prepared in graphical format with or on a detailed grading plan addressing on-site and off-site drainage control, flood control and erosion control issues for lots or parcels of less than five acres.

DRAINAGE REPORT. A comprehensive analysis of the drainage, flood control and erosion control constraints on and impacts resulting from proposed platting, development or construction project.

EROSION CONTROL. Treatment measures for the prevention of damages due to soil movement and to deposition from the ten-year design storm runoff.

EROSION CONTROL PLAN. A plan for the mitigation of damages due to soil erosion and to deposition from the ten-year design storm runoff.

FLOOD CONTROL. The treatment measures necessary to protect life and property from the 100-year design storm runoff.

FLOOD HAZARD AREA. An area subject to inundation from the 100-year design storm runoff.

FLOODWAY. The channel of a river, arroyo or other water course and adjacent land areas that must be reserved in order to safely discharge the 100-year design storm runoff.

FULLY DEVELOPED WATERSHED. A hydrological condition in which all areas upstream and downstream of a point in question are assumed completely developed, including any undeveloped areas which are assumed to be developed in accordance with mid-range development densities as established by the comprehensive plan, appropriate area plans or sector plans, adopted by the facilities master plans and the hydraulic and hydrologic standards established by this chapter.

GRADING PLAN. A plan describing the existing topography and proposed grading, including retaining wall locations and details, interfaces with adjacent properties, streets, alleys and channels, referenced to mean sea level based on a city bench mark, and showing sufficient contours, spot elevations and cross-sections to allow a clear understanding by reviewers, contractors and inspectors.

MAINTENANCE. The cleaning, shaping, grading, repair and minor replacement of drainage, flood control and erosion control facilities, but not including the cost of power consumed in the normal operation of pump stations.

MAJOR ARROYO. Any channel whose watershed exceeds 320 acres in a 100-year design storm whether the watershed is in its natural or unaltered state or has been altered by development, runoff diversions or detention facilities.

MAJOR FACILITY. Any facility, including a street or alley, which would collect, divert or convey a peak discharge of more than 50 cubic feet per second (50 cfs) or store more than 2.0 acre-feet of runoff in the event of a 100-year design storm.

MASTER PLANNED FACILITY. Any drainage control, flood control or erosion control facility recommended in the comprehensive plan, amendments thereto, or any voter-approved, general obligation bond financed drainage control, flood control or erosion control facility.

MINOR FACILITY. Any facility which would collect, divert or convey a peak discharge of 50 cubic feet per second (50 cfs) or less in the event of the 100-year design storm.

MULTIPLE USE FACILITY. A drainage control, flood control or erosion control facility in which other secondary uses are planned or allowed, including but not limited to recreation, open space, transportation and utility location.

NUISANCE WATERS. Those waters leaving a site and entering a public street which do not result from precipitation, such as landscape overwatering or car washing.

100-YEAR DESIGN STORM. The storm in which precipitation within a six-hour period and resulting runoff has a 1 % chance of being equaled or exceeded in any given year.

PUBLIC DRAINAGE SYSTEM. The path that storm runoff or other flow will follow from the furthest upstream parcels of land to city limits.

TEMPORARY DRAINAGE FACILITY. A nonpermanent drainage control, flood control or erosion control facility constructed as part of a phased project or to serve until the time that a permanent facility is in place, including but not limited to desilting ponds, berms, diversions, channels, detention ponds, bank protection and channel stabilization measures.

TEN-YEAR DESIGN STORM. The storm in which precipitation within a six-hour period and resulting runoff has a 10% chance of being equaled or exceeded in any given year.
(`87 Code, § 8-7-5) (Ord. 84-113; Am. Ord. 91-037; Am. Ord. 01-020)

§ 153.06 COMPLIANCE.

(A) The design, construction and maintenance of all drainage control, flood control and erosion control facilities within the city shall be performed in accordance with procedures, criteria and standards formulated by the City Engineer and in accordance with the policies established by this chapter.

(B) (1) All construction activities within the jurisdiction of the city shall conform to the requirements of the City Engineer with respect to drainage control, flood control and erosion control.

(2) All modifications to the public drainage system are subject to approval by the City Engineer.

(a) Construction, grading or paving on any lot within the jurisdiction of the city shall not increase the damage potential to upstream, downstream or adjacent properties or public facilities. Damages shall be defined as those caused by flooding from the 100-year design storm and all smaller storms and from erosion and sedimentation resulting from the 10-year design storm and all smaller storms.

(b) During the months of July, August or September, any grading within or adjacent to a watercourse defined as a major facility shall provide for erosion control and the safe passage of the ten-year design storm runoff during the construction phase.

(c) Grading, cut, fill or importation of material in excess of 500 cubic yards or grading of any area of one acre or more or any grading which would modify the public drainage system or grading which would result in a building pad having an elevation less than one foot above the adjoining street or road shall conform to drainage control, flood control and erosion control policies and to standards, criteria and procedures established by the City Engineer with respect to drainage, flood control and erosion control. A grading permit, issued by the City Engineer, shall be required for any construction or development related grading activity, prior to the commencement of any such grading activity. This permit may be approved as part of a building permit, provided that the building permit is reviewed and approved by the City Engineer. Applications for development of areas known to have been sanitary landfills shall be accompanied by a report which discusses potential health and soil mechanics problems and their solutions. The reports shall be prepared by a New Mexico professional engineer, competent in soil mechanics.

(d) Paving an area larger than 1,000 square feet shall require a paving permit. Applications for paving permit shall be accompanied by drainage plans, if deemed necessary by the City Engineer. Repaving of existing paved areas in which no grading is planned is excluded.

(e) All residential grading shall comply with the most recent version of the Uniform Building Code adopted by the city.

(f) The City Engineer shall not issue a grading or paving permit unless the proposed grading or paving is in compliance with the policies of this chapter and the standards and criteria of the City Engineer as provided by § 153.36.

(C) The city may participate with the private sector, other public bodies and agencies operating within the jurisdiction of this policy, in order to accomplish the goals and implement the policies adopted in this chapter. This includes, but shall not be limited to, the development and adoption of master plans, participation in the construction of projects, and exercising control through the planning, platting, zoning and permitting processes. Projects involving city funding shall be prioritized, funded and scheduled within the guidelines of the CIP and with CIP projects.

(` 87 Code, § 8-7-12) (Ord. 84-113; Am. Ord. 91-037; Am. Ord. 01-020)

§ 153.07 WARNING; DISCLAIMER OF LIABILITY.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside flood hazard areas or uses permitted within the areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city or on any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

(` 87 Code, § 8-7-16) (Ord. 84-113; Am. Ord. 91-037)

§ 153.08 INTERPRETATION.

In the interpretation and application of this chapter, all provisions shall be:

(A) Considered as minimum requirements;

(B) Liberally construed in favor of the city;

(C) Deemed neither to limit nor repeal any other powers granted under state statutes;

(D) Not deemed to limit nor repeal any other provision of this code, adopted by the governing body, unless expressly so stated herein.

(` 87 Code, § 8-7-17) (Ord. 84-113; Am. Ord. 91-037)

*CONTROL STANDARDS***§ 153.20 DESIGN, CONSTRUCTION AND MAINTENANCE.**

(A) The city endorses the goal of flood damage reduction through the regulation of development within flood hazard areas and the preservation of floodways. This chapter is intended to complement and supplement Chapter 152 of this code, and shall be administered in concert therewith.

(B) All developed land within the city shall be provided with adequate drainage, flood control and erosion control facilities. The protection of life and property shall be considered with primary function in the planning, design, construction and maintenance of drainage control, flood control and erosion control facilities, but other concerns, not limited to the following shall be addressed: channel capacity, watershed characteristics, channel stability, maintenance, transitions between treatment types, multiple use goals and appearance. The needs of the community in transportation, utility services, recreation, and open space shall be considered in planning, design, construction and maintenance (especially in the selection of channel treatment measures). These needs shall always be considered subsidiary to the primary function of the drainage control, flood control and/or erosion control facility.

(C) The design, construction and maintenance of dams, levees and diversions that fall within the jurisdiction of the State Engineer shall meet or exceed standards established by the State Engineer.

(D) The design, construction and maintenance of flood control facilities shall be coordinated with other affected flood control agencies.

(E) All major facilities shall be constructed within dedicated rights-of-way or recorded drainage easements granted to and accepted by the proper public authority.

(F) All detention ponds defined as minor facilities shall be constructed on private property unless otherwise authorized by the City Engineer. Except as is necessary for the treatment of nuisance water, all ponds shall be designed and constructed to be emptied in 24 hours or less. The use of individual lot ponding shall be governed by the standards established by the City Engineer.

(G) Wherever flood control, drainage or erosion control improvements are necessary within dedicated public open space, the improvements shall be designed and constructed in a manner reasonably consistent with the natural surroundings. All construction and maintenance activities in dedicated open space shall be performed so as to minimize the disruption and destruction of vegetation and adjacent land forms. Where the disturbance or destruction is unavoidable, revegetation shall be performed at the earliest practical time by those responsible for the disturbance and/or destruction.

(H) The City Engineer is responsible for establishing criteria, procedures and standards for design and construction of flood control, drainage control and erosion control improvements within the city. The City Engineer shall provide for variance from normal criteria and standards; when a variance is required or requested, the City Engineer shall document the justification for his decision and place in the public records with the City Clerk the actions and justifications; appeals of the City Engineer's variance decisions is as provided in § 153.38.

(`87 Code, § 8-7-6) (Ord. 84-113; Am. Ord. 91-037)

§ 153.21 SURFACE USE OF STREETS.

(A) The surface of streets may be used for drainage and flood control purposes, to the extent the use does not interfere with the safe transportation of people and vehicles.

(B) The 100-year design storm runoff shall not exceed a depth of 0.87 feet at any point within the street right-of-way, or 0.2 feet above top of curb, in any street or enter private property, built in compliance with appropriate regulations, from a street, except in recorded drainage or flood control easements or rights-of-way (or historic channels and watercourses where easements or rights-of-way cannot be obtained).

(C) (1) The ten-year design storm runoff shall not exceed a depth of 0.5 feet in any arterial street and shall flow such that one 12-foot driving lane in each direction is free of flowing or standing water. The ten-year design storm runoff shall not exceed a depth of 0.5 feet in any collector street.

(2) Arterial and collector streets that are in the state highway system may require more stringent drainage criteria.

(D) The product of depth times velocity shall not exceed 6.5 at any location in any street in the event of a ten-year design storm (with velocity calculated as the average velocity measured in feet per second and depth measured at the gutter flowline in feet).

(E) The discharge of nuisance waters to public streets shall be discouraged. Arterial and collector streets shall be protected from damages to the pavement surface and from the safety hazards created by surface flow of nuisance waters across them.

(F) All newly developed land within the city shall be served by at least one paved access that shall be an all-weather facility during a 100-year design storm, with all channel-crossing structures beneath the roadway being able to pass a 100-year design storm runoff event.

(`87 Code, § 8-7-7) (Ord. 84-113; Am. Ord. 91-037)

§ 153.22 CROSSINGS.

(A) Channel crossing structures shall be provided on all arterial and collector streets to safely pass the 100-year design storm runoff from major arroyos, assuming a fully developed watershed.

(B) Streets other than arterials, collector and sole access may cross major arroyos and other watercourses by means of a "dip section" or an "overflow section," provided depth times velocity (with velocity calculated as the average velocity measured in feet per second and depth measured in feet at the upstream edge of the roadway including sidewalk) does not exceed 6.5 for that portion of the ten-year storm runoff crossing on the street.

(C) Where feasible, temporary crossings shall be designed so they may be incorporated into the future permanent crossing structure so that they meet street design standards established by the City Engineer.

(D) Crossing of major arroyos by arterial and collector streets shall be at public expense. Crossings of arroyos by streets other than arterials and collectors shall be constructed at developer expense and shall meet street design standards established by the City Engineer.

(E) Temporary crossings required for access, including those on arterials and collectors, shall be constructed at developer expense.

(`87 Code, § 8-7-8) (Ord. 84-113; Am. Ord. 91-037)

§ 153.23 RIGHTS-OF-WAY AND EASEMENTS.

(A) Multiple use is encouraged for drainage rights-of-way and drainage easements, e.g., for utility corridors and for recreation trails. Where multiple use is planned by the city, another public agency, or a public utility, the city may require that dedication statements include language which permits the uses in addition to the primary drainage function. However, land required to be dedicated for drainage rights-of-way and easements shall be limited to those land areas necessary for drainage control, flood control, erosion control and necessary appurtenances.

(B) Drainage rights-of-way and easements may be credited for open space, except for any area which is exclusively used for the drainage control or flood control function.

(`87 Code, § 8-7-10) (Ord. 84-113; Am. Ord. 91-037)

§ 153.24 FINANCIAL AND MAINTENANCE RESPONSIBILITY.

(A) (1) The city may participate in the construction of permanent flood control facilities to the extent that public benefits are derived from the construction and are consistent with Capital Improvement Program (CIP) priorities. Reimbursement for private funding of such projects may also be available under these conditions.

(2) The city may participate in the costs of channel crossing structures for arterial and collector streets which are required for sole access to a development. The developer's share shall not exceed the cost required to meet the minimum street width standards established by the City Engineer.

(3) The city shall not participate in the funding of flood control facilities in which the sole intent is the reclamation of undeveloped land located within a flood hazard area for private development purposes.

(4) The dedication of land for public purposes does not relieve a developer of responsibilities for the construction of drainage control, flood control and erosion control facilities that would otherwise be necessary. The dedication of rights-of-way or easements for drainage control, flood control or erosion control facilities does not relieve a developer of responsibilities that would otherwise exist for the construction of other public infrastructure.

(`87 Code, § 8-7-9)

(B) (1) Except as otherwise noted herein, all permanent major facilities shall be maintained by the city or other public body. The maintenance of multiple use facilities to which the general public is denied access shall be the responsibility of the owners and shall be performed to City Engineer standards. The City Engineer may allow private maintenance within public right-of-way or easement, provided that adequate guarantees and indemnifications are supplied.

(2) Minor facilities shall be maintained by their owners to City Engineer standards.

(3) The maintenance of temporary facilities constructed at private expense (except crossing structures) is the responsibility of the developer until permanent facilities are in place.

(4) The developer shall be responsible for maintaining or replacing temporary crossing structures for a period of six years or until a permanent structure is built, whichever comes first. The city shall maintain temporary crossings which are designated and built such that they may be directly incorporated into the ultimate facilities.

(`87 Code, § 8-7-11) (Ord. 84-113; Am. Ord. 91-037)

ADMINISTRATION AND ENFORCEMENT**§ 153.35 CITY ENGINEER; DUTIES AND DETERMINATIONS.**

(A) It shall be the responsibility of the City Engineer to produce, approve, make and retain records of all drainage plans, drainage reports, design analyses, design drawings, as-built drawings and maintenance schedules related to all drainage control, flood control and erosion control facilities constructed within city rights-of-way or easements.

(B) Applications for all land use changes shall address drainage control, flood control and erosion control in terms of the interactions of these parameters with other requirements and needs produced by the proposed land use changes.

(C) Requests for the platting of land for the purpose of subdivision or development shall be accompanied by appropriate drainage control, flood control and erosion control information.

(D) (1) The City Engineer shall not approve any plan or report pertaining to proposed construction, platting or other development where the proposed activity or change in the land affected would result in downstream capacity being exceeded.

(2) Downstream capacity is determined based on the assumption of fully developed watersheds. This assumption prevents “the first come, first served” approach where downstream development unduly constrains upstream development. Parameters used in the determination of downstream capacity include, but are not limited to:

- (a) Channel stability;
- (b) Crossing structure hydraulic capacity;
- (c) Reservoir capacity;
- (d) Hydraulic capacity of street, storm sewer or channel;
- (e) Public safety; and
- (f) Maintenance constraints.

(3) Planned public storm drainage facilities are assumed as in place in determining downstream capacity, provided that construction funds are available and design has progressed to the point where capacity can be ascertained.

(E) Temporary facilities are only allowed and/or required on a case-by-case basis as determined by the City Engineer. The level of protection to be provided by temporary facilities shall be determined by considering:

- (1) The likelihood and consequences of a failure;
- (2) Length of time until permanent facilities will be in place; and
- (3) The acceptance of maintenance responsibilities and legal liabilities.

(F) (1) Requests for approval of construction, development and/or platting proposals to the City Engineer shall be accompanied by drainage control, flood control and erosion control information and/or commitments. This information must be prepared by a professional engineer, licensed in the State of New Mexico, unless the City Engineer waives this requirement.

(2) The particular nature, location and scope of the proposed development defines the degree of detail. One or more of the following levels of submittal may be required based on the following:

(a) *Conceptual grading and drainage plan.* A graphic representation of existing and proposed grading, drainage, flood control and erosion control information. The information should be of sufficient detail to determine project feasibility. The purposes of this plan are to check the compatibility of the proposed development within grading, drainage, flood hazard and erosion control constraints as dictated by on-site physical features as well as adjacent properties, streets, alleys and channels. Modifications to the comprehensive plan and the development of area plans, sector plans, site development plans and landscaping plans on tracts of five acres or more are appropriate applications of conceptual grading and drainage plans.

(b) *Drainage plans.* A short detailed presentation required for approval of small, simple development approvals. Drainage plans are prepared in combination with the detailed grading plan and address both on-site and off-site drainage control, flood control and erosion control issues. Drainage plans are required for building permits, site development plans and landscaping plans for developments involving less than five acres.

(c) *Drainage report.* A drainage report is a comprehensive analysis of the drainage control, flood control and erosion control constraints on and impacts resulting from a proposed platting, development or construction project. Drainage reports are required for subdivisions containing more than ten lots or constituting five acres or more, platting or construction within a designated flood hazard area and for any platting or development adjacent to a major arroyo.

(d) *Erosion control plan.* An erosion control plan is usually incorporated into the drainage plan or drainage report. Erosion control plans address all phases of each project from initial grading through and including final occupancy. Phased projects required special attention. All construction projects, both public and private, within the jurisdiction of this chapter, unless specifically excluded, require an approved erosion control plan prior to start of construction.

(G) Drainage control considerations specifically address safety, convenience and economics for both private property and public facilities.

(H) (1) The 100-year design storm is the 100-year 6-hour storm as defined by the National Oceanic Atmospheric Administration (NOAA) and by the storm distributions for time and area as developed by the City Engineer. The 100-year storm has a 1 % probability of occurring in any year. Watersheds with times of concentration greater than 6 hours will require the use of the 100-year 24-hour storm volumes and distributions. Detention basins with longer than 6 hours evacuation times shall use a 24-hour or longer storm volume and distribution.

(2) Design circumstances may require larger or smaller storm volumes. Examples are emergency spillways for dams and erosion control plans, respectively. The sources for rainfall data are current NOAA publications and the City Engineer. When the need for other design storms is apparent, the City Engineer will provide requirements concerning appropriate storms, frequencies and durations.

(I) The City Engineer shall, within 14 to 30 calendar days after the submission to him of a request in writing for the approval of a plat, development plan, drainage submittal or exemption, approve or deny the request and mail a copy of his decision to the applicant. If the request is denied, the reasons for the denial shall be stated in writing. Appeal of the decisions is as provided in § 153.38.

(J) Grading or paving permits issued by the City Engineer or approvals by the City Engineer of drainage plans, erosion control plans or other improvement plans within the context of this chapter shall expire by limitation and become null and void if the work or improvements authorized is not commenced within 12 months of the approvals. In the event the authorized work or improvement is suspended or abandoned for a period of 12 months after the work or improvement is commenced, the permit or approval shall expire and become null and void. Before the work or improvement is recommended, resubmittals must be made for approval by the City Engineer.

(` 87 Code, § 8-7-12) (Ord. 84-113; Am. Ord. 91-037; Am. Ord. 01-020)

§ 153.36 PROCEDURES; AMENDMENTS AND CRITERIA.

(A) Rules concerning procedures, criteria and standards shall be adopted, amended or abolished in compliance with the policies of this chapter and as provided by the procedures of this section. All rules and decisions shall be filed in the public records with the City Clerk.

(B) Proposed rule changes relating to procedures, criteria and standards pursuant to this chapter are initiated by the City Engineer; or any person may submit the proposed rule changes to the City Engineer. If a person other than an official of the city submits a proposal, there may be a processing fee set by a rule of the City Engineer.

(C) Prior to the adoption, amendment or repeal of any rule pursuant to this chapter (hereafter, referred to as "rule change"), the City Engineer shall:

(1) Publish summary notice of the proposed rule change and solicit local comments in a newspaper of general circulation, which has its principal office in the city, and also where appropriate in trade, industrial or professional publication as will reasonably give public notice to interested persons;

(2) Send the proposed rule change to all city departments and solicit written comments;

(3) Send the proposed rule change to any person or group filing written request for notice of all rule changes; (A fee may be charged for requesting notices to cover reasonable city costs.)

(4) Solicit written comment on proposed rule changes for a period of 30 days from the date of their distribution and consider all comments before ruling on proposed rule changes; and

(5) Upon adoption of a contested rule change, issue a concise statement of his principal reasons for the rule change and statement of positions rejected in adopting the rule change together with the reasons for the rejection. All persons who submit any writing to be considered in connection with the proposed rule change shall promptly be given a copy of the decision, by mail or otherwise.

(D) If a proposed rule change is approved by the City Engineer after receiving comments, notice shall be posted in a conspicuous place in City Hall and a reasonable effort shall be made to notify all interested parties. Proposed rule changes shall not take effect sooner than 30 days from the date of posting of notice or sooner than 90 days from original distribution for comment.

(E) In the event of an emergency, the Mayor may direct that rules concerning procedures, criteria or standards take effect immediately upon their posting and distribution. The Mayor's finding of an emergency and brief statement of the reasons for this finding shall be incorporated in the emergency rule change. Upon adoption of an emergency rule change which change shall remain in effect for longer than 60 days, notice to the public shall be given within 7 days and opportunity for public comment shall be given in the manner required in this section for proposed rules.

(F) Appeal of the City Engineer's rule-making decisions is as provided in § 153.38. Regular rules, adopted under division (D) above, do not take effect until an appeal is decided, if they are appealed prior to taking effect. Emergency rules, adopted under division (E) above, and regular rules, which have taken effect prior to appeal, are in effect until the time as they may be reversed by appeal action.

(`87 Code, § 8-7-13) (Ord. 84-113; Am. Ord. 91-037)

§ 153.37 ENFORCEMENT.

(A) (1) Whenever necessary to make an inspection to enforce any of the provisions of this chapter, the City Engineer or his authorized representative may enter the premises at all reasonable times to inspect the same or to perform any duty imposed upon him by this chapter, provided that, if the premises be occupied, he shall first present proper credentials and demand entry; and, if the premises be unoccupied, he shall first make a reasonable effort to locate the owner or other persons having charge or control of the premises and demand entry. If entry is refused or if the owner or other responsible person is not found, the City Engineer or his authorized representative shall proceed to obtain a search warrant through the municipal court or district court, upon oath or affirmation.

(2) The complaint shall:

- (a) Set forth the particular premises, or portion thereof, sought to be inspected;
- (b) State that the owner or occupant of the premises, or portion thereof, has refused entry;
- (c) State that inspection of the premises, or portion thereof, is necessary to determine whether it complies with the requirements of this chapter;
- (d) Set forth the particular provisions of this chapter sought to be enforced;
- (e) Set forth any other reason necessitating the inspection, including knowledge or belief that a particular condition exists in the premises, or portion thereof, which constitutes a violation of this chapter; and
- (f) State that the complainant is authorized by the city to make the inspection.

(3) Each inspector shall be furnished with an identification card indicating his authority and must present same to the municipal court or district court for the purpose of this division (A) and to other persons, when requested to do so during the performance of his duties. No owner or occupant or any other person having charge, care, or control of any premises shall fail or neglect, after proper demand is made as herein provided, to promptly permit entry therein by the authorized inspector for the purpose of inspection and examination pursuant to this chapter.

(B) Where, after investigation, an order has been issued by the City Engineer to the owner of the property on which a violation has occurred and the order is not complied with, within such reasonable time as may be prescribed by the City Engineer, or if the responsible party or violator cannot be found or determined, the City Engineer may cause such remedies as are necessary to be made. The reasonable cost of such remedies shall constitute a lien against the property on which the violation occurred and was

remedied. The lien shall be imposed and foreclosed in the manner provided in NMSA §§ 3-36-1 through 3-36-6, as amended.

(C) Except as otherwise provided in this chapter, the City Development Director or his designee shall administer this chapter pursuant to §§ 150.01 *et seq.*

(`87 Code, § 8-7-14) (Ord. 84-113; Am. Ord. 91-037; Am. Ord. 01-020)

§ 153.38 APPEALS.

(A) Any applicant, aggrieved by a decision as to actions, provided for in §§ 153.06, 153.20, 153.35 and 153.36 of the City Engineer or absence of the decision, may appeal the decision to the governing body. The appeal shall be made by notice of appeal in writing addressed to the City Clerk and delivered, by copy, to the office of the City Engineer within 30 days after the date of the decision was mailed to the applicant.

(B) The City Clerk shall notify the applicant and the City Engineer of the date, time and place of the appeal hearing at least 5 days prior to the hearing date. The hearing shall be conducted not earlier than 10 days nor later than 30 days after the filing of the notice of appeal with the City Clerk. At the hearing, the governing body may consider the facts, exhibits and engineering principles as may be presented by the appellant or City Engineer or his designee, or of which the members may have knowledge or experience, and may affirm, reverse or modify the decision appealed from, and attach as conditions to their decision the requirements as in their opinion may be necessary or appropriate in compliance with the policies of this chapter to safeguard persons and property from storm water runoff.

(C) Each decision of the governing body shall be in writing and shall state reasons therefor. A copy of the decision shall be promptly mailed to the appellant and to the City Engineer.

(`87 Code, § 8-7-15) (Ord. 84-113; Am. Ord. 91-037)

Nuisances; Health and Sanitation

§ 91.08 DUST CONTROL.

(A) No person shall discharge from any source whatsoever the quantities of airborne particulate matter which may cause injury, detriment, nuisance or annoyance to the public without taking reasonable precautions to prevent particulate matter generated by the activity from becoming airborne.

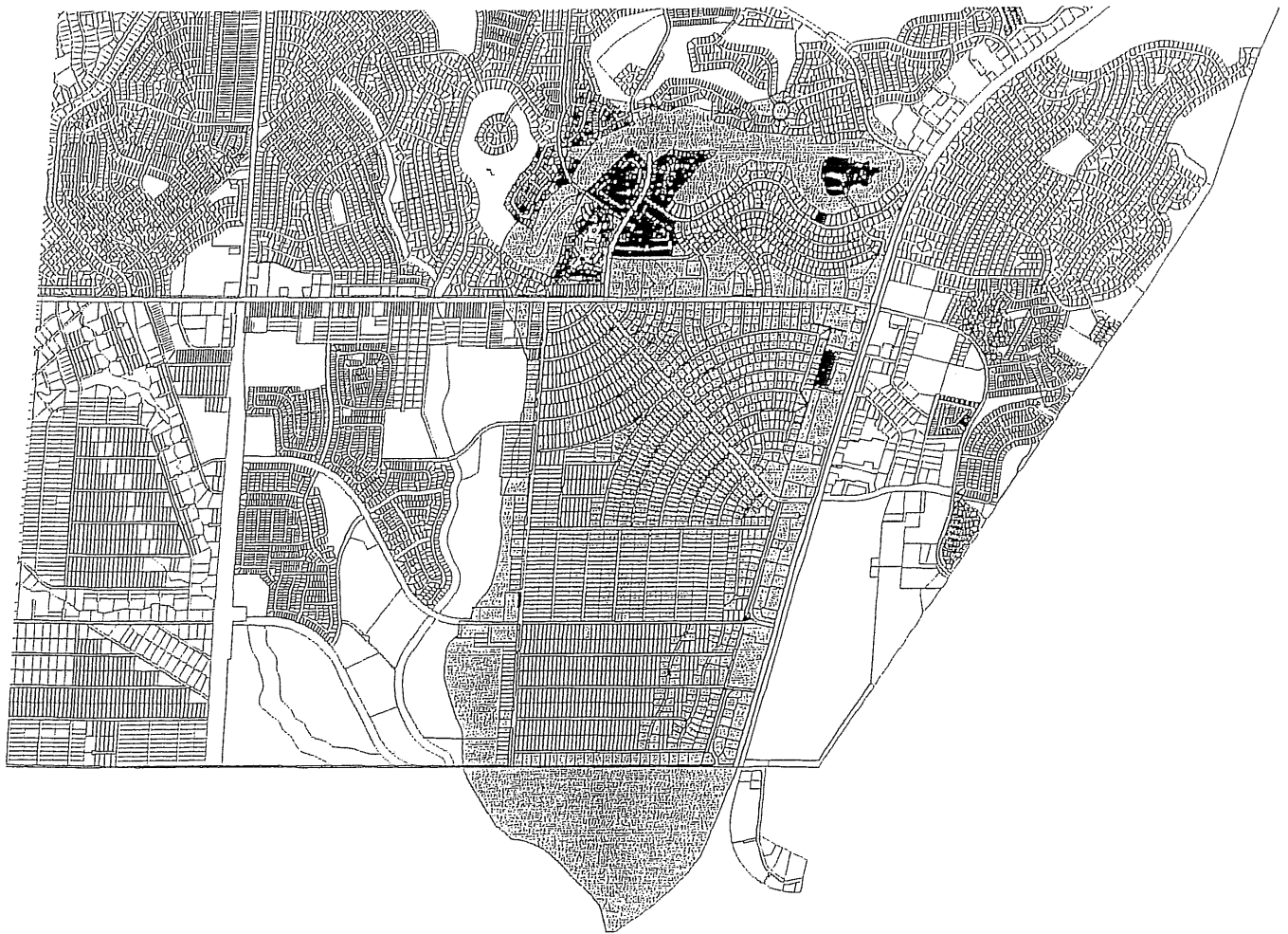
(B) (1) No person or person in control of any property shall disturb, move onto or remove soil from any area without utilizing every reasonable method, such as watering or the use of erosion control fencing, to limit the airborne particulate to the boundaries of the property.

(2) Where grading permits are required pursuant to § 153.06, the grading permit must be obtained from the City Engineer's office before any soil or vegetation is disturbed. Dust control measures shall conform to drainage control, flood control and erosion control policies, standards, criteria and procedures established by the City Engineer. It shall be considered a violation of this section and


grounds for cancellation of the grading permit if the work schedule, pollution prevention measures, and other relevant items are changed from those specified in the permits, unless the permittee has first obtained written approval of the City Engineer.

(`87 Code, § 9-12-8) (Ord. 97-032; Am. Ord. 01-020) Penalty, see § 10.99

NM 528 Watershed



0.6 0 0.6 1.2 Miles

A horizontal scale bar with four segments. The first segment is labeled '0.6', the second '0', the third '0.6', and the fourth '1.2 Miles'. The segments are of varying lengths, with the '0' segment being the shortest and the '1.2 Miles' segment being the longest.

Discharge Restricted to 0.5 cfs
per Acre in this Watershed

